App. No. 09/981,718

Amndt. dated Dec. 16, 2003

Resp. to Office Action dated Sept. 4, 2003

**Amendments to the Claims:** 

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

Please amend the claims as shown and add new Claims 6 and 7.

1. (Original) A functionalized, structurally modified silica, characterized by functional groups fixed on the surface, the groups being 3-methacryloxypropylsilyl and/or glycidyloxypropylsilyl, with the following physico-chemical characteristic data:

BET surface area	$m^2/g$	25 - 380
Primary particle size	nm	6 - 45
Tamped density	g/l	50 - 400
pH		3 - 10
Carbon content	%	0.1 - 15
DBP number	%	<200

- 2. (Original) The functionalized, structurally modified silica of Claim 1, wherein the silica is produced by pyrolysis prior to surface modification.
- 3. (Original) The functionalized, structurally modified silica of Claim 1wherein the BET surface area ranges from 90±15 to 380±15.
- 4. (Original) A process for the preparation of functionalized, structurally modified silica according to Claim 1, comprising spraying silica first with water or dilute acid and then with a surface modification reagent or a mixture of several surface modification reagents in a

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mixing vessel, intensively mixing the silica and said reagent, optionally re-mixing the silica for 15 to 30 minutes and then heat-treating at a temperature of 100 to 400°C over a period of 1 to 6 h, to thereby produce a functionalized silica, then destructuring or compacting said silica and optionally re-grinding said silica in a mill.

- 5. (Original) A coating composition containing the functionalized, structurally modified silica according to Claim 1 in a binder vehicle.
- 6. (New) A functionalized, structurally modified silica, characterized by functional groups fixed on the surface, the groups being 3-methacryloxypropylsilyl and/or glycidyloxypropylsilyl, with the following physico-chemical characteristic data:

BET surface area	$m^2/g$	25 - 380
Primary particle size	nm	6 - 45
Tamped density	g/1	50 - 400
pН		3 - 10
Carbon content	%	0.1 - 15
DBP number	%	<200,

said functionalized, structurally modified silica being produced by spraying pyrogenically produced silica first with water or dilute acid and then with at least one of a surface modification reagent selected from the group consisting of 3-methacryloxypropylsilane, glycidoxypropylsilane and mixtures thereof, in a mixing vessel, intensively mixing the silica and said reagent, optionally re-mixing the silica for 15 to 30 minutes and then heat-treating at a temperature of 100 to 400°C over a period of 1 to 6 h, to thereby produce said functionalized silica.

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7. (New) The functionalized, structurally modified silica according to Claim 6, which has been additionally subjected to destructuring or compacting and optionally re-grinding said silica in a mill.